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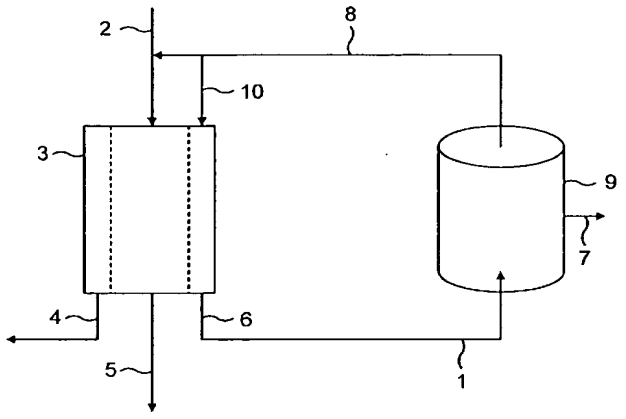
(54) Title: TREATMENT OF AQUEOUS CHEMICAL WASTE



(57) Abstract: A method for the treatment of an aqueous stream containing both anionic and cationic species is provided. The method comprises the following steps. Circulating water continuously through an essentially closed loop, the loop incorporating an ion adsorption unit which, in turn, comprises a water permeable layer of an ion adsorbing material. Feeding an aqueous solution containing the anionic and the cationic species to the essentially closed loop. Passing the circulating water, including the aqueous solution containing the ionic and the cationic species, through the ion adsorbing material in the ion adsorption unit in a continuous manner. Whilst at the same time applying an electric potential across the thickness of the layer of ion adsorbing material and removing from the ion adsorption unit more concentrated aqueous solutions of the separate ionic species. Discharging each of the aqueous solutions from the ion adsorption unit. Passing the more concentrated solution of the other ionic species through a reaction unit in which the ionic species reacts to form a water-insoluble solid material. Recycling eluate from the reaction unit to the ion adsorption unit; and, if necessary, adding a quantity of water to the closed loop, this quantity corresponding the quantity of aqueous solution removed from the reaction unit.

WO 2005/026055 A2

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